

THIS OPINION WAS NOT WRITTEN FOR PUBLICATION

The opinion in support of the decision being entered today
(1) was not written for publication in a law journal and
(2) is not binding precedent of the Board.

Paper No. 15

UNITED STATES PATENT AND TRADEMARK OFFICE

BEFORE THE BOARD OF PATENT APPEALS
AND INTERFERENCES

Ex parte MICHAEL J. SHARPES
and
ROBERT L. TOTORICA

Appeal No. 96-0396
Application 08/091,953¹

ON BRIEF

Before STONER, Chief Administrative Patent Judge, and FRANKFORT
and STAAB, Administrative Patent Judges.

FRANKFORT, Administrative Patent Judge.

¹ Application for patent filed July 15, 1993.

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DECISION ON APPEAL

This is a decision on appeal from the examiner's final rejection of claims 1 through 16, all of the claims in the application.

Appellants' invention relates to an apparatus utilized in the testing and burning in of semiconductor components. Claim 1 is representative of the subject matter on appeal and a copy of claim 1, as it appears in the Appendix to appellants' brief, is attached to this decision.

The examiner relies on the following references:

Dice	4,145,620	Mar. 20, 1979
Yoshizaki	4,468,616	Aug. 28, 1984
Hamilton	4,900,948	Feb. 13, 1990

Claims 5 through 16 stand rejected under 35 U.S.C. § 112, first paragraph, since, in the examiner's opinion, the specification as originally filed does not provide support for the invention as it is now claimed. The examiner argues that the specification as originally filed teaches the use of a DC to DC converter that reduces both voltage and current, and that by

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changes made in the substitute specification filed July 12, 1994 appellants have changed the meaning of the DC to DC converter. More specifically, the examiner asserts (Answer, page 3) that the now claimed feature of the DC to DC converters raising a low power supply current to a higher current has not been disclosed in the original specification.

Claims 1 and 2 stand rejected under 35 U.S.C. § 103 as being unpatentable over Yoshizaki in view of Hamilton.

Claims 3 through 16 stand rejected under 35 U.S.C. § 103 as being unpatentable over Yoshizaki and Hamilton and further in view of Dice.

OPINION

Looking first to the rejection of claims 5 through 16 under 35 U.S.C. § 112, first paragraph, we understand this rejection to be based upon the written description requirement of the first paragraph of § 112. In general, the test for determining compliance with the written description requirement of § 112 is whether the disclosure of the application as originally filed

reasonably conveys to the artisan that the inventor had possession at that time of the later claimed subject matter, rather

than the presence or absence of literal support in the specification for the claim language under consideration. Further, it is also well settled that the content of the drawings may be considered in determining compliance with the written description requirement. See Wang Lab. Inc. v. Toshiba Corp., 993 F.2d 858, 865, 26 USPQ2d 1767, 1774 (Fed. Cir. 1993); Vas-Cath Inc. v. Mahurkar, 935 F.2d 1555, 1564, 19 USPQ2d 1111, 1117 (Fed. Cir. 1991). See also In re Kaslow, 707 F.2d 1366, 1375, 217 USPQ 1089, 1096 (Fed. Cir. 1983).

The examiner has taken the position, that appellants set forth that the DC to DC converters in the specification, as originally filed, operated to lower both the DC voltage and current. The originally filed specification (page 8, lines 5-10) does appear to indicate, or at least imply, that both the voltage and current were to be lowered by the DC to DC converters. However, one of ordinary skill in the art would have recognized that the power input to a DC to DC converter must equal the power leaving the DC to DC converter, minus the losses

due to resistance in the windings, magnetic losses, etc. This means that if a DC to DC converter raises the voltage, the amperage of the supplied current must be reduced and vice-versa.

Thus to the extent that the originally filed specification may have mistakenly implied that both the voltage and current would be lowered by the DC to DC converter, this would have been readily understood by one of ordinary skill in the art to be an impossibility under the operating conditions otherwise described in the originally filed specification. After reviewing the disclosure as a whole, we are convinced that the skilled artisan would have readily understood the passage at page 8, lines 5-10, of the originally filed specification in the manner now set forth in the substitute specification. Accordingly, since in our opinion, one of ordinary skill in the art would have reasonably understood that the inventors herein had possession of the now claimed subject matter at the time of original filing of the application, we reverse the examiner's rejection of claims 5 through 16 under 35 U.S.C. § 112, first paragraph.

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Next we review the examiner's rejection of claims 1 and 2 under 35 U.S.C. § 103 as being unpatentable over Yoshizaki in view of Hamilton. We will not sustain this rejection.

The combined teachings of Yoshizaki and Hamilton fail to provide any suggestion of the use of a high voltage-low current DC power being supplied along a bus bar to at least one slot board, and the use of a DC to DC converter on the slot board, which would lower the DC voltage to an appropriate level and provide appropriate amperage for digital circuitry on the Device Under Test (DUT) board. Both Yoshizaki and Hamilton fail to teach any explicit details of their power supply. Neither Yoshizaki nor Hamilton mentions a DC power supply or DC to DC converters on the slot boards therein. The examiner's conjecture (in the paragraph bridging pages 5 and 6 of the answer) concerning the possibility of a DC power supply and DC to DC converters on the slot boards of a burn-in oven is without factual support in the record and appears to be total speculation based on the hindsight benefit of having first viewed appellants' disclosure. Accordingly, since Yoshizaki and Hamilton fail to teach or

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suggest the limitations of the claims, we reverse the examiner's rejection of claims 1 and 2 under 35 U.S.C. § 103.

Claims 3 through 16 stand rejected under 35 U.S.C. § 103 as being unpatentable over Yoshizaki in view of Hamilton and further in view of Dice. We will not sustain this rejection.

The same deficiency that required us to reverse the rejection of claims 1 and 2 exists in this rejection too, namely the lack of a single high voltage-low current DC supply and DC to DC converters on each of the slot boards for converting the high voltage-low current DC to a low voltage-high current DC needed by the DUT on each given DUT board. In fact, the combination of Yoshizaki, Hamilton, and Dice appears to teach away from the claimed invention, by teaching the use of multiple power supplies (elements 16, 18, 20 and 22 of Fig. 1 of Dice), which are supplied to all the slot boards as required. Accordingly, since Yoshizaki, Hamilton, and Dice fail to teach or suggest the limitations of claims 3 through 16, we reverse the examiner's rejection of claims 3 through 16 under 35 U.S.C. § 103.

The decision of the examiner is reversed.

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REVERSED

BRUCE H. STONER, JR.)	
Chief Administrative Patent Judge)	
)	
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)	BOARD OF PATENT
CHARLES E. FRANKFORT)	APPEALS AND
Administrative Patent Judge)	INTERFERENCES
)	
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)	
LAWRENCE J. STAAB)	
Administrative Patent Judge)	

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APPENDIX

1. A modularly designed burn-in oven, comprising:

an oven chamber;

an electrical components chamber;

an insulated wall separating said oven chamber from said components chamber;

at least one DUT board in said oven chamber, said DUT board having first and second ends and an electrical connector at said first end;

a slot board in said components chamber, said slot board having first and second ends, a first electrical connection on said first end, and a second electrical connection on said second end, said slot board positioned so that said first electrical connection fits through said insulated wall and couples to said electrical connector of said DUT board;

a direct current (DC) to DC power converter on said slot board for receiving DC power from a power supply and lowering a voltage level and providing appropriate amperage for digital circuitry on said DUT board;

and

a seal positioned between said oven chamber and said components chamber so as to pressure fit said electrical connection of said slot board to said DUT board.